15-BUF

HISTORIC AMERICAN ENGINEERING RECORD

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LTV Steel, 8" Bar Mill, Buffalo Plant HAER NO. NY-310 Buffalo Erie County New York

JET LOWE, PHOTOGRAPHER, MAY 1986

NY-310-1 EAST ELEVATION, LTV STEEL (FORMERLY REPUBLIC STEEL), 8" BAR MILL, BUFFALO PLANT. VIEW LOOKING SOUTHWEST FROM ROLL SHOP. 8" BAR MILL DESIGNED AND BUILT BY DONNER STEEL CO. (PREDECESSOR OF REPUBLIC), 1919-1920. FOR DESCRIPTION OF ORIGINAL MILL SEE "IRON AGE", 116\4 (23 JULY 1925): 201-204. NY-310-2 BILLET YARD NORTH OF 8" MILL SHOWING MATERIALS HANDLING EQUIPMENT FOR TRANSFERRING SEMI-FINISHED STEEL FROM STORAGE TO HEATING FURNACE, INCLUDING: OVERHEAD CRANE; SKIDWAYS; AND TRANSFER ROLLS. VIEW LOOKING SOUTHEAST. NY-310-3 PORTION O MAIN DRIVE TRAIN FROM 800 HORSEPOWER TO STANDS #2, 1, AND 0, INCLUDING BREAKING SPINDLE COUPLING AND #2 STAND BEVEL GEARING. THE SAME MOTOR ALSO DRIVES THE OTHER FOUR STANDS OF CONTINUOUS ROUGHING ROLLS. NY-310-4 CHARGING END OF 8" MILL HEATING FURNACE. SHOWING MOTOR-OPERATED SCREW PUSHERS FOR MOVING BILLETS FROM TABLE A INTO FURNACE. NY-310-5 DETAIL OF 8" MILL BILLET HEATING FURNACE INTERIOR FROM CHARGING END. DISCHARGE END OF 8" MILL REHEATING FURNACE, NY-310-6 SHOWING MOTOR-OPERATED PEEL BAR PUSHER WITH PINCH ROLLS FOR MOVING BILLETS ENDWISE OUT THE OPPOSITE SIDE OF THE FURNACE TOWARD THE CONTINUOUS ROUGHING TRAIN. NY-310-7 OPERATOR'S STATION FOR PEEL BAR PUSHER AT 8" MILL HEATING FURNACE. NY-310-8 HEATED BILLETS MOVED FROM RIGHT TO LEFT OUT

SHEAR INTO STAND #0.

OF 8" MILL FURNACE THROUGH PINCH ROLLS AND

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NY-310-9	8" MILL CONTINUOUS ROUGHING TRAIN, SHOWING PULPIT (R), STANDS #0,1,2, TRANSFER TABLE B, AND STANDS #3,4,5,(L). STEEL BEING ROLLED MOVES FROM RIGHT TO LEFT.
NY-310-10	VIEW OF FINISHING STANDS #7-10 FROM FURNACE SIDE OF TRAIN, LOOKING TOWARD STRANDING TROUGHS AND HOT BEDS. STEEL IS LOOPED OR CAUGHT BY HAND ON THE PASSES THROUGH THESE STANDS
NY-310-11	VIEW OF FINISHING STANDS #10,11, AND 12 FROM FURNACE SIDE OF TRAIN, LOOKING TOWARD TABLE C. THE FINISHING ROLLS ON STAND #12 WERE DRIVEN BY A 300 HP MOTOR, THE FIFE REMAINING LOOPING STANDS WERE POWERED ORIGINALLY BY A 600 HP MOTOR; A 700 HP REPLACEMENT WAS INSTALLED C. 1955.
NY-310-12	VIEW FROM HOT BED SIDE OF FINISHING TRAIN, LOOKING BACK (NORTH) FROM TABLE C TO STAND #12.
NY-310-13	VIEW FROM HOT BED SIDE OF STAND #12, LOOKING PAST STRANDING TROUGHS (R) TOWARD HOT BEDS.
NY-310-14	MILL END OF HOT BEDS WITH STRANDING TROUGHS (R) AND BAR COILERS (L). PRODUCT SHEAR AT FAR (SOUTH) END, OF HOT BEDS.
NY-310-15	VIEW LOOKING SOUTH FROM BAR COILERS ACROSS HOT BEDS TOWARD SHEAR.
NY-310-16	BAR COILERS.
NY-310-17	EXTENSION OF SHEAR RUNOUT TABLE INTO SHIPPING BUILDING, WHICH LAY PERPENDICULAR TO 8" MILL. VIEW LOOKING NORTH INCLUDES NEW BOLD PRODUCT SHEARS, STOPS LENGTH GAUGES, AND BUNDLING CRADLES.
NY-310-18	VIEW FROM FURNACE END OF 8" MILL, LOOKING SOUTH TO STRANDING TROUGHS AND FINISHING TRAIN.

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GUIDE EQUIPMENT FOR CONTROLLING THE POSITION OF THE STEEL AS IT ENTERED AND EXITED THE ROLLS OF THE 8" MILL. GUIDES WERE CHANGED DEPENDING ON THE SECTION AND SIZE BEING ROLLED.

NY-310-20

CATCHERS' TONGS AND SAFETY EQUIPMENT USED IN MANIPULATING HOT BARS BY HAND AT THE FINISHING STANDS OF THE 8" MILL.